

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
14 July 2005 (14.07.2005)

PCT

(10) International Publication Number  
**WO 2005/063119 A1**

(51) International Patent Classification<sup>7</sup>: **A61B 5/00,**  
G01N 21/65

(21) International Application Number:  
PCT/US2004/043759

(22) International Filing Date:  
22 December 2004 (22.12.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:  
60/531,848 22 December 2003 (22.12.2003) US

(71) Applicant (for all designated States except US):  
**LIGHTOUCH MEDICAL, INC.** [US/US]; 2501  
Woodland Road, P.O. Box 531, Bryn Athyn, PA 19009  
(US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **CHAIKEN, Joseph**  
[US/US]; 302 Edwards Drive, Fayetteville, NY 13066  
(US). **DRACKER, Robert** [US/US]; 7716 Summerwood  
Place, Liverpool, NY 13090 (US). **HAGRMAN, Pamela,**

J. [US/US]; 917 Comstock Ave., Syracuse, NY, 13210  
(US). **HAGRMAN, Douglas** [US/US]; 917 Comstock  
Ave., Syracuse, NY 13210 (US).

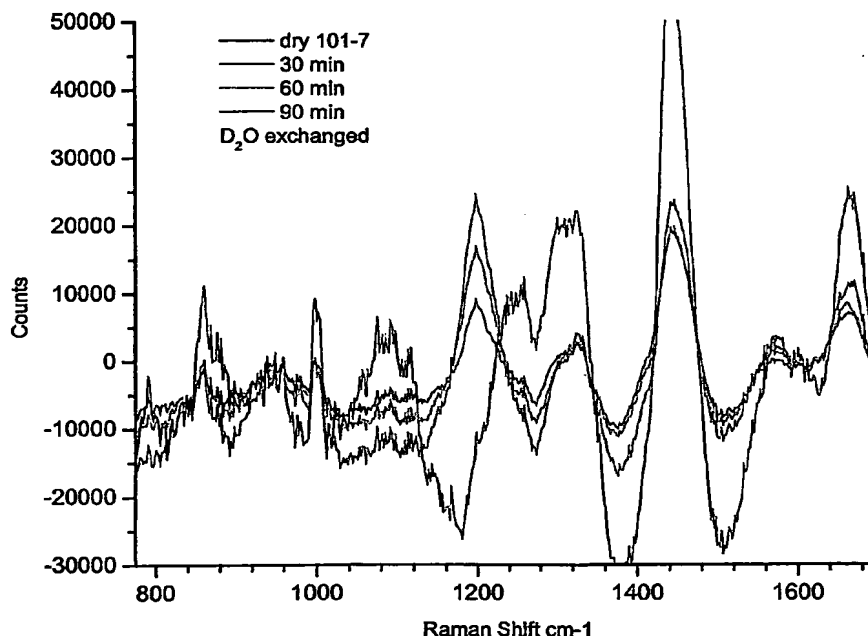
(74) Agent: **CANADY, Karen, S.**; Gates & Cooper LLP, 6701  
Center Drive West, Suite 1050, Los Angeles, CA 90405  
(US).

(81) Designated States (unless otherwise indicated, for every  
kind of national protection available): AE, AG, AL, AM,  
AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN,  
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,  
GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE,  
KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD,  
MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG,  
PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM,  
TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM,  
ZW.

(84) Designated States (unless otherwise indicated, for every  
kind of regional protection available): ARIPO (BW, GH,  
GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM,  
ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),  
European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI,

[Continued on next page]

(54) Title: PROCESS AND DEVICE FOR DETERMINATION OF CELL VIABILITY



(57) Abstract: Described is a method to determine the viability of cells by measuring the absolute and relative rate of metabolic activity and/or integrity of the cell membrane through the use of vibrational spectroscopy. The use of deuterated agents facilitates detection of changes associated with a change in viability.

WO 2005/063119 A1



FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO,  
SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN,  
GQ, GW, ML, MR, NE, SN, TD, TG).

**Published:**

— with international search report

**Declaration under Rule 4.17:**

— of inventorship (Rule 4.17(iv)) for US only

*For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*